



Estimation of Chemical Compounds and Antioxidant Activity of Muntingia Calabura Extract

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Abstract : Cherry (*Muntingia calabura*) is particularly useful as a shade tree by the roadside. The leaves contains flavonoids, saponins, tannins and triterpen, steroid. The compounds in pharmaceuticals has a role as an antioxidant, anti diabetic, a bitter taste, antimicrobial, diuretic, etc. This research aims to determine the chemical compounds in cherry leaves that has properties as catcher free radicals. This research conducted through the extraction process using a randomized block design with various temperature (30, 40, 50, 60°C), time (t) (30, 40, 50, 60 minutes) and aquadest as a solvent. The results of the best extraction treatment is at 50°C for 60 minutes with the value of DPPH 96.86%. Based on analysis of GC-MS showed that volatile compounds consist of myrcene (5,927%), thymol (3,543%), α terpinol (11,831%), linalool (2,240%), geraniol (21,718%), nerol (4,375%), citronellol (12,837%), eugenol (17,498%), α lonone (1,413%), β sitosterol (7,806%), α Amyrin (3,167%), Lupelol (4,228%), α tocopherol (1,975%), dan β carotene (1,425%). Result analysis of LC-MS showed that consist of Fumaric acid (6,643%), Succinic acid (4,903%), Niacin (0,718%), Malic acid (2,863%), Cinnamic acid (4,945%), Pyridoxine (1,893%), Gallic acid (21,428%), Ascorbic acid (6,121%), Glucose (8,166%), Fructose (20,690%), Pantothenic acid (1,478%), Biotin (1,025%), Thiamine (1,158%), Kaempferol (6,825%), Catechin (14,407%), Quercetin (10,623%), Riboflavin (1,131%) and Folic acid (1,553%).

Keywords : Leaves of Muntingia calabura, extraction, antioxidant, DPPH, GC-MS, LC-MS.